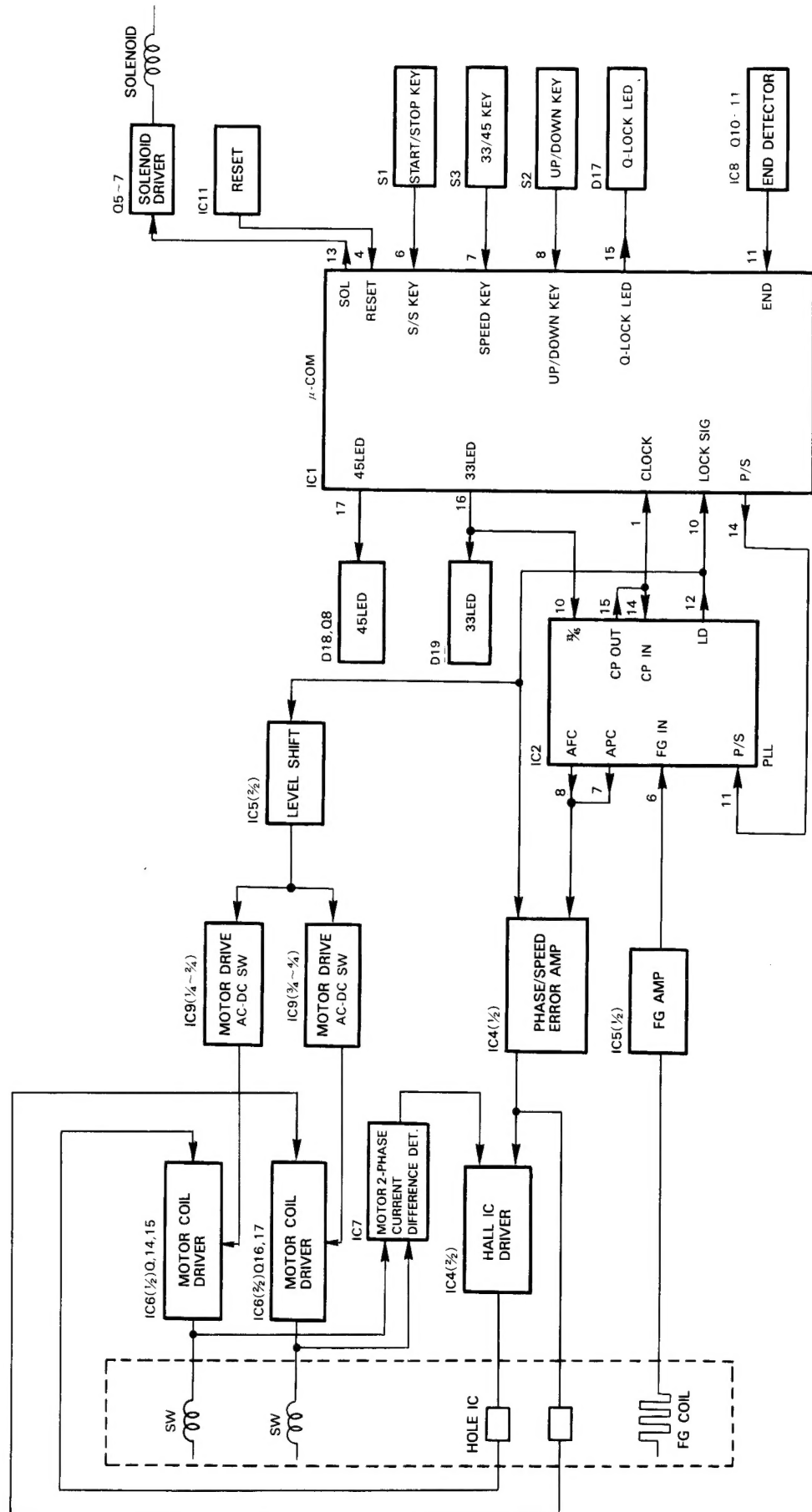


Use the red special screw only for shield case.

*Refer to Parts List on page 12.

BLOCK DIAGRAM

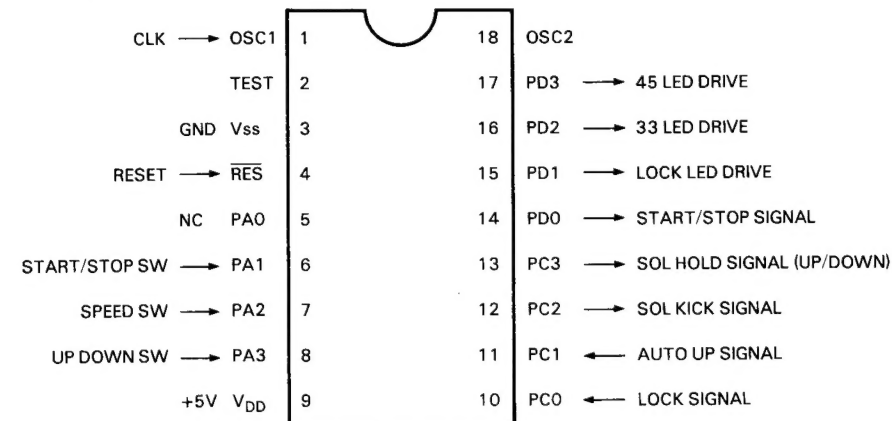


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CIRCUIT DESCRIPTION

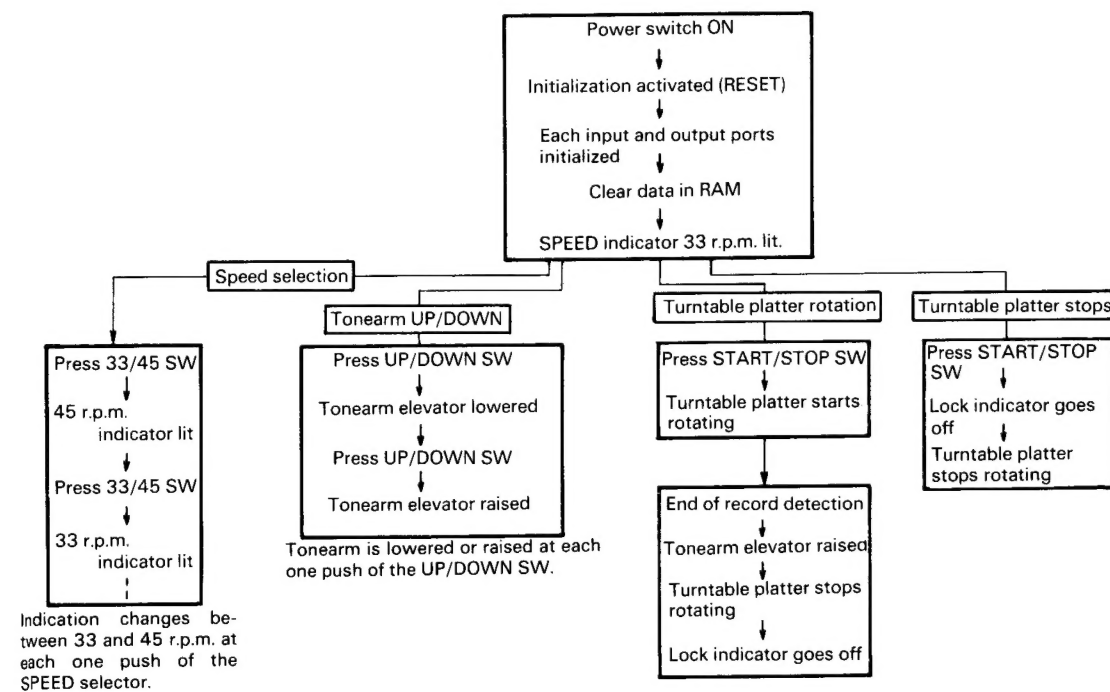
Microprocessor Operation Description (LC6528C-4053)

Port description



• Operation specifications

The following diagram shows the operations of each section which occur at each operating point after power has been turned on.



Condition of each LC6528C-4053

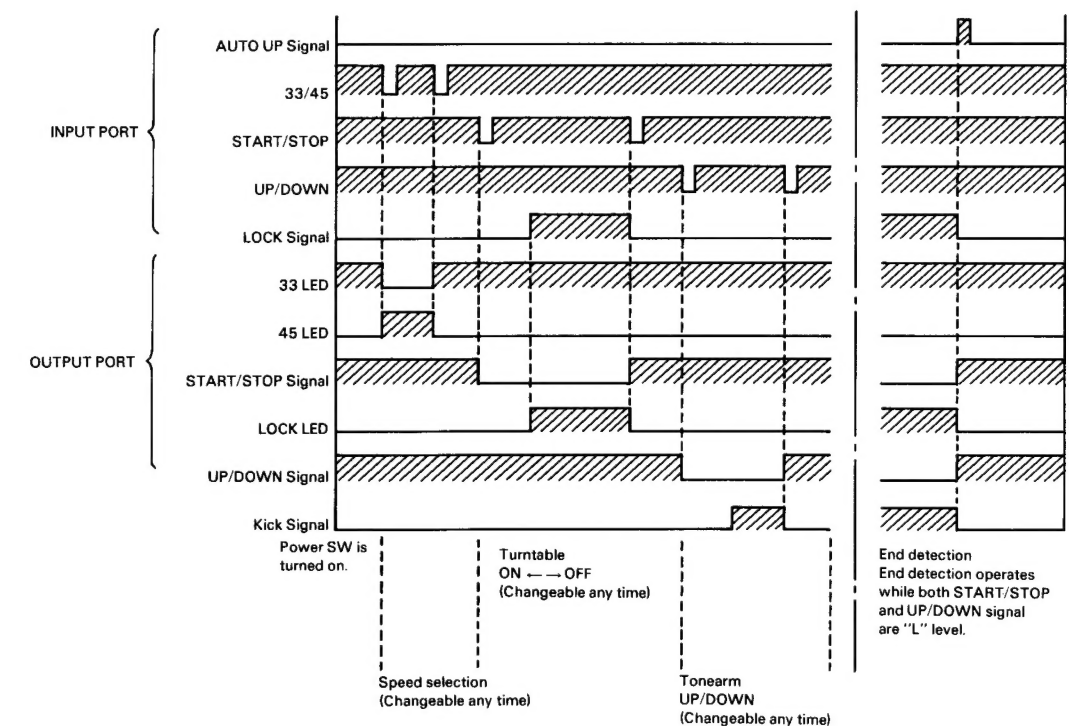
- (1) Initialization (Power ON)
- (2) Speed selection (33/45 rpm)
- (3) Turntable platter starts rotating (START)
- (4) Tonearm auto up
- (5) Turntable platter stops rotating (STOP)

The above mentioned (1) ~ (5) are placed in the order of the functions described in "LC6528C-4053 Function description". The conditions shown in the table below are also in that order so that functions can be confirmed while checking the IC's ports.

PIN NO.	INPUT PORT						OUTPUT PORT					
	7	6	11	5	8	10	16	15	17	14	13	12
PORT NAME	33/45 SW	START STOP SW	AUTO UP Signal	Not used	UP DOWN SW	LOCK Signal	33rpm LED	LOCK LED	45rpm LED	START STOP Signal	UP DOWN Signal	Kick Signal
(1) Power ON RESET												
(2) 33/45 SW ON (45) 33/45 SW ON (33)												
(3) START/STOP SW ON												
(4) Auto up signal IN START/STOP SW ON												
(5) START/STOP SW ON												

I/O port timing diagram

(Note) This diagram shows the timing for operation (1) to (5)



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ADJUSTMENT/REGLAGES/ABGLEICH

ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TURNTABLE SETTING	ALIGNMENT POINTS	ALIGN FOR	FIG.
1	END DETECT STARTING POSITION	—	Connect a DC voltmeter to TP1 (Pin 7 of IC8)	Set the stylus tip so that 57.5mm is obtained from the center of the turntable spindle.	VR1	0.9V	(a)
2	THRESHOLD VOLTAGE	—	Connect a DC voltmeter to TP2 (Pin 2 of IC8)	—	VR2	220mV	(b)

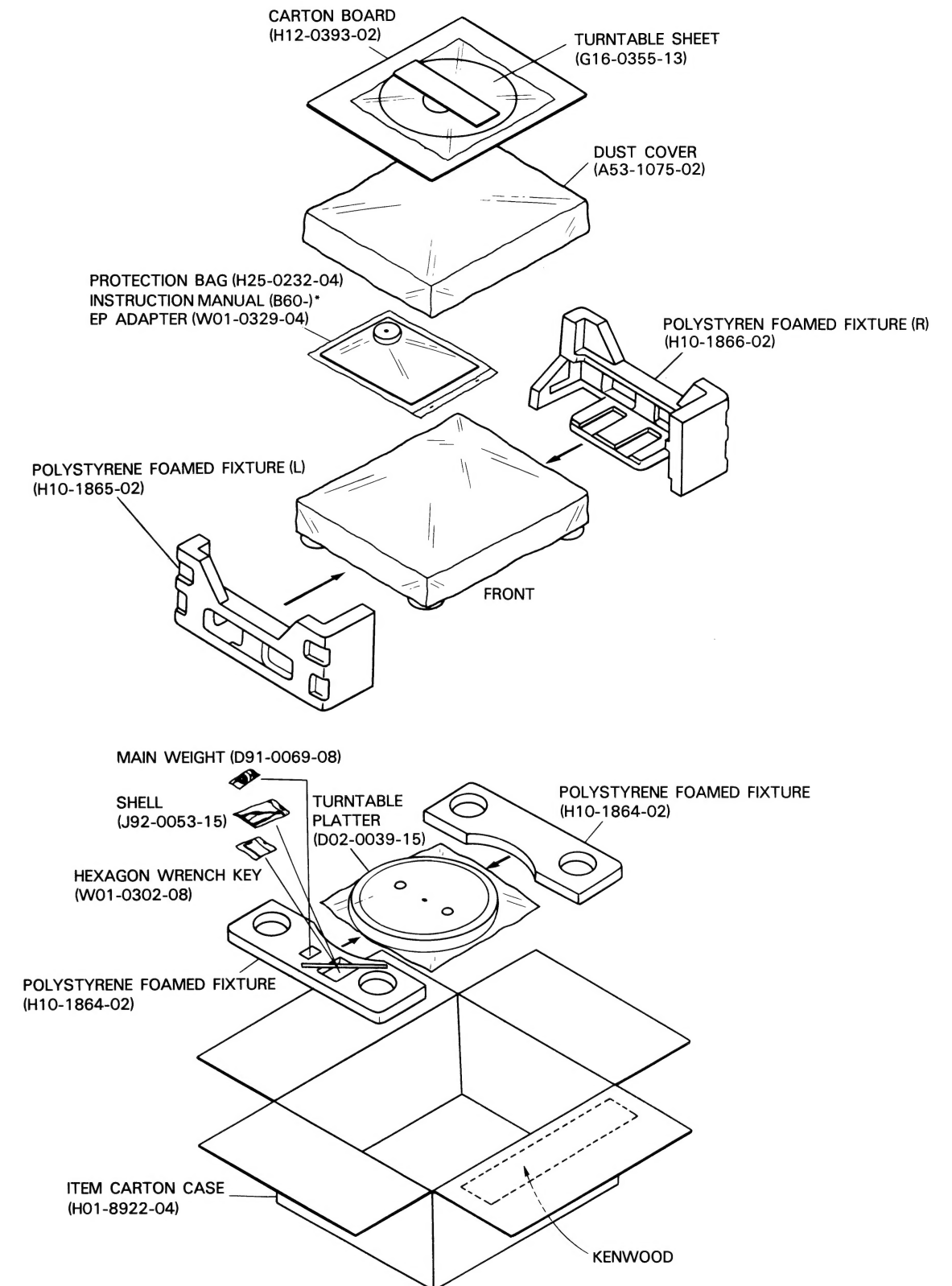
REGLAGES

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DE TOURNE-DISQUE	POINTS L' ALIGNMENT	ALIGNER POUR	FIG.
1	POSITION DE DEPART LA TERMINASION DE DETECTEUR	—	Connecteur un voltmètre CC à TP1 (Fiche 7 de IC8)	Régler la crête de aiguille de façon de 57,5mm soit obtenir de centre de plateau à disques.	VR1	0,9V	(a)
2	TENTION DE SEUIL	—	Connecteur un voltmètre CC à TP2 (Fiche 2 de IC8)	—	VR2	220mV	(b)

ABGLEICH

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	PLATTEN SPIELER-EINSTELLUNG	ABGLEICH PUNKTE	ABGLEICHEN Für	ABB.
1	ENDE DETEKTS ANFANGS-STELLUNG	—	Einen Gleichspannungs messer zum TP1 (Stift 7 von IC8) anschließen.	Der spitze von Tonabnehmer so einstellen, daß ein 57,5mm aus der mitte des Plattentellers erhalt wird.	VR1	0.9V	(a)
2	SCHWELLEN-SPANNUNG	—	Einen Gleichspannungs messer zum TP2 (Stift 2 von IC8) anschließen.	—	VR2	220mV	(b)

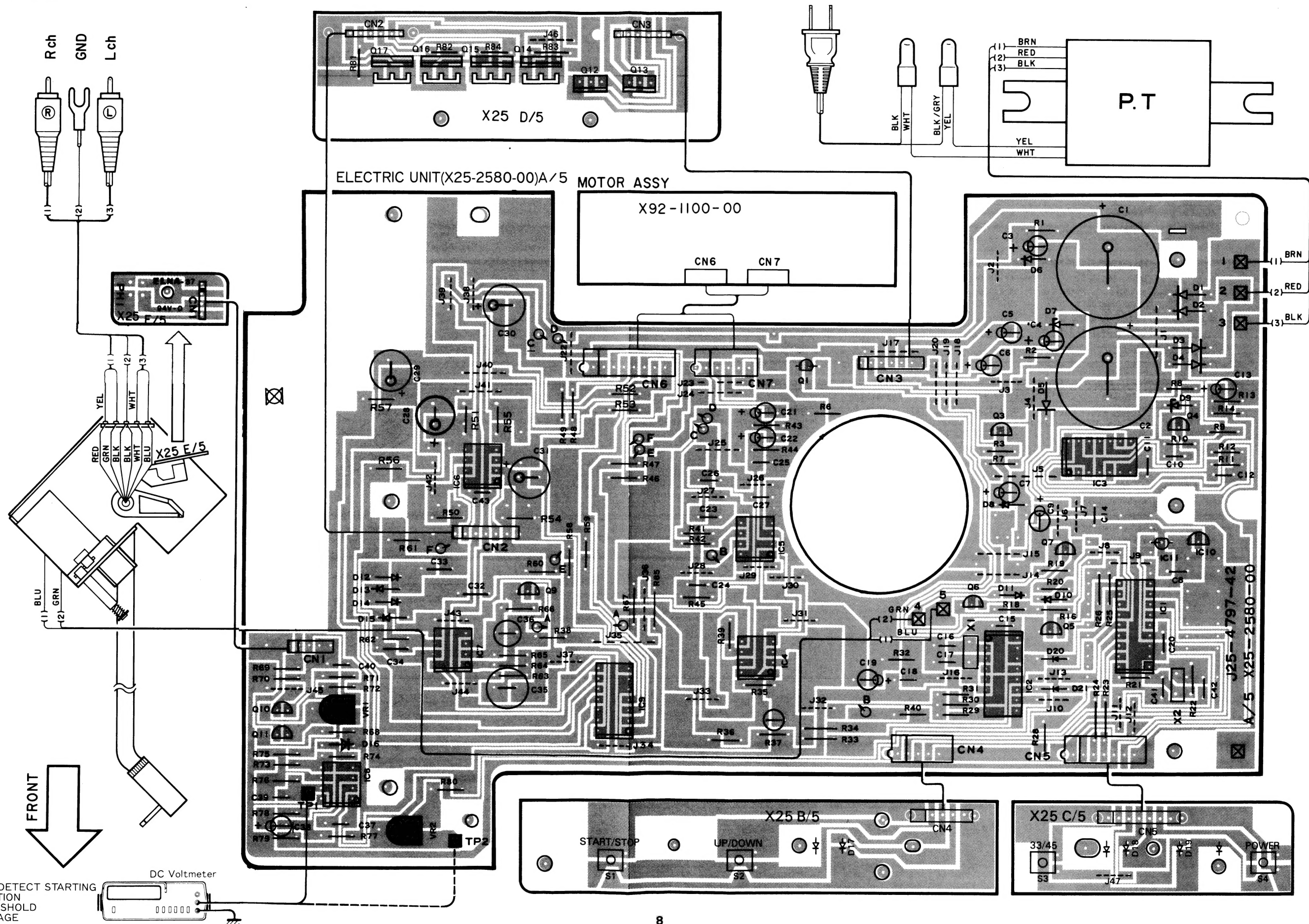
PACKING



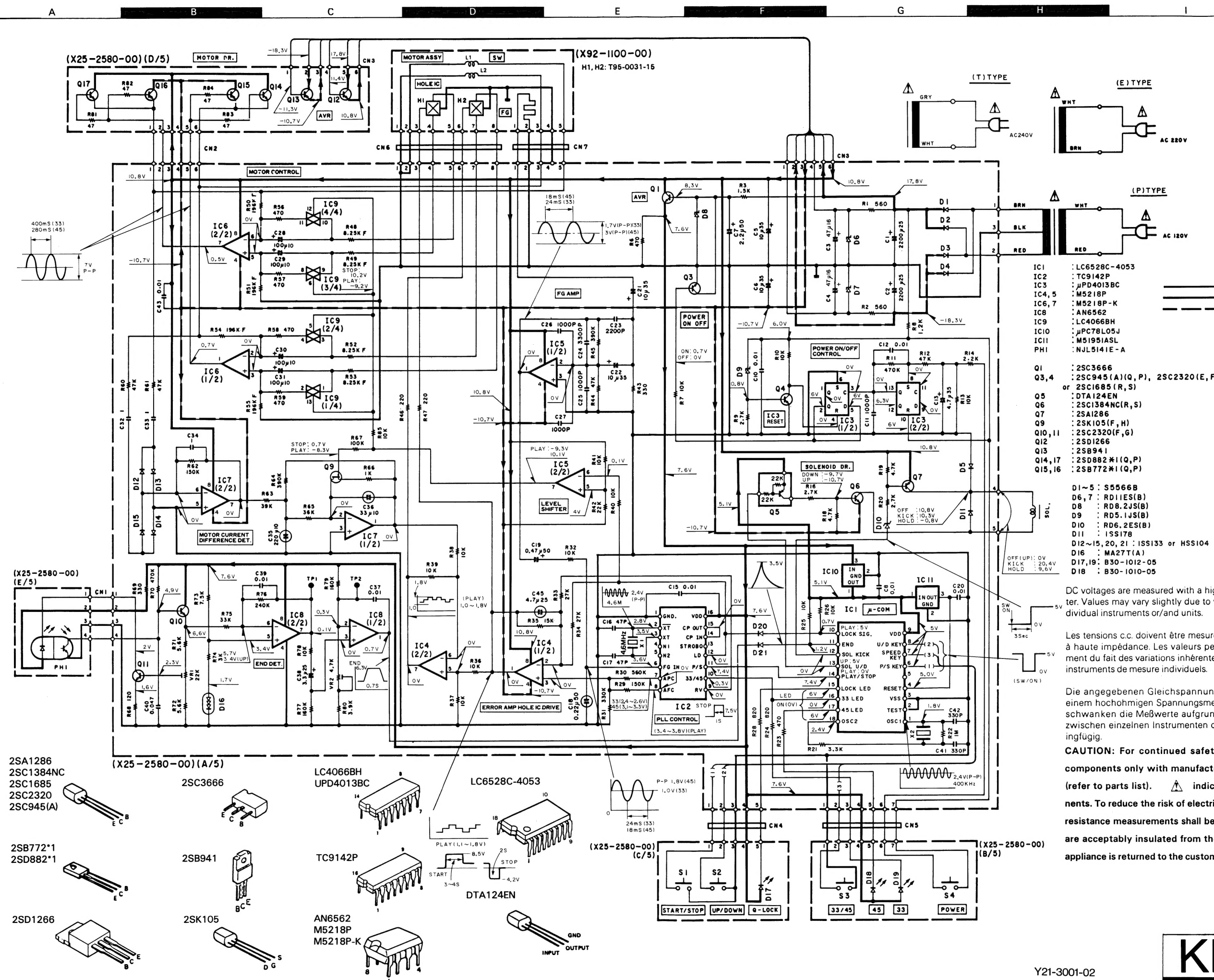
*Refer to Parts List on page 12.

PC BOARD (COMPONENT SIDE VIEW)

Refer to the schematic diagram for the values of resistor and capacitors.



- (a) END DETECT STARTING POSITION
- (b) THRESHOLD VOLTAGE



- | | |
|--------|------------------|
| IC1 | : LC6528C-4053 |
| IC2 | : TC9142P |
| IC3 | : μ PD4013BC |
| IC4, 5 | : M5218P |
| IC6, 7 | : M5218P-K |
| IC8 | : AN6562 |
| IC9 | : LC4066BH |
| IC10 | : μ PC78L05J |
| IC11 | : M5195IASL |
| PHI | : NJL5141E-A |
-
- | | |
|---------|----------------------------------|
| Q1 | : 2SC3666 |
| Q3, 4 | : 2SC945(A)(Q, P), 2SC2320(E, F) |
| Q5 | : 2SC1685(R, S) |
| Q6 | : DTA124EN |
| Q7 | : 2SC1384NC(R, S) |
| Q8 | : 2SA1286 |
| Q9 | : 2SK105(F, H) |
| Q10, 11 | : 2SC2320(F, G) |
| Q12 | : 2SD1266 |
| Q13 | : 2SB941 |
| Q14, 17 | : 2SD882*(I(Q, P) |
| Q15, 16 | : 2SB772*(I(Q, P) |
-
- | | |
|----------------|--------------------|
| D1~5 | : S5566B |
| D6, 7 | : RD11ES(B) |
| D8 | : RD8.2JS(B) |
| D9 | : RD5.1JS(B) |
| D10 | : RD6.2ES(B) |
| D11 | : ISS178 |
| D12~15, 20, 21 | : ISS133 or HSS104 |
| D16 | : MA27T(A) |
| D17, 19 | : B30-1012-05 |
| D18 | : B30-1010-05 |

DC voltages are measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- | | | | | |
|----------|-----------|----------|--------------|-----------|
| 2SA1286 | 2SC1384NC | 2SC1685 | 2SC2320 | 2SC945(A) |
| 2SB772*1 | 2SD882*1 | 2SC3666 | LC4066BH | UPD4013BC |
| 2SB941 | 2SK105 | AN6562 | M5218P | M5218P-K |
| 2SD1266 | TC9142P | DTA124EN | LC6528C-4053 | |

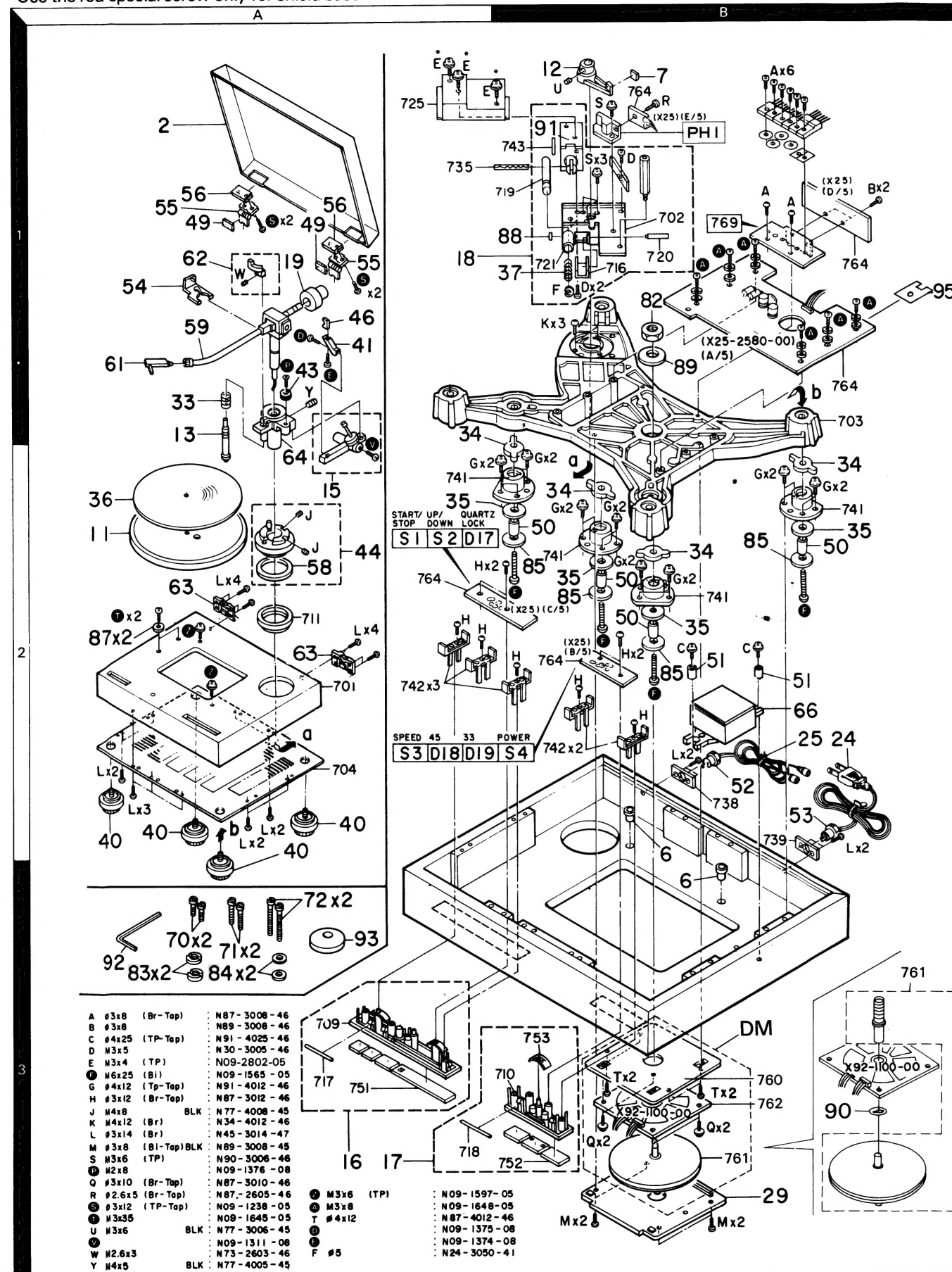
KD-8030

KD-8030

EXPLODED VIEW (MAIN UNIT)

PARTS LIST

*Use the red special screw only for shield case.



No.1

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No.2

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

Ref. No.	Address	Parts No.	Description	Destination
2	1A	A53-1075-02	DUST COVER	P E T
6	2B, 3B	B09-0051-04	CAP	
7	1B	B19-0510-14	WARRANTY CARD	
		B46-0121-03	WARRANTY CARD	
		B46-0122-13	WARRANTY CARD	
		B46-0145-03	WARRANTY CARD	
		B58-0290-04	CAUTION CARD	
		B58-0386-04	CAUTION CARD	
		B58-0518-04	CAUTION CARD	
		B58-0519-04	CAUTION CARD	
		B60-0307-00	INSTRUCTION MANUAL(ENGLISH)	
		B60-0308-00	INSTRUCTION MANUAL(FRENCH)	
		B60-0309-00	INSTRUCTION MANUAL(G/D/I)	
11	2A	D02-0039-15	TURNABLE PLATTER	
12	1B	D10-0944-24	ARM	
13	1A	D21-1007-08	SHAFT ASSY	
15	2A	D39-0169-08	ANTI-SKATING DEVICE ASSY	
16	3A	D40-0957-03	OPERATIONAL PART ASSY(OPERATE)	
17	3A	D40-0844-03	OPERATIONAL PART ASSY(POWER)	
18	1A	D40-0511-23	AUTO-UP MECHANISM ASSY	
19	1A	D91-0069-08	MAIN WEIGHT	
24	2B	E30-0459-05	AC POWER CORD	
24	2B	E30-0780-05	AC POWER CORD	
24	2B	E30-1416-05	AC POWER CORD	
25	2B	E30-0800-05	AUDIO CORD	
29	3B	F07-0483-03	COVER	
		F07-0574-08	COVER	
33	1A	G01-1057-08	TORSION COIL SPRING	
34	1A, 2B	G11-1127-04	CUSHION	
35	2A, 2B	G11-1128-04	CUSHION	
36	2A	G16-0353-13	TURNABLE SHEET	
37	1B	G01-1078-04	COMPRESSION SPRING	
		H01-8922-04	ITEM CARTON CASE	
		H10-1864-02	POLYSTYRENE FOAMED FIXTURE(T.T)	
		H10-1865-02	POLYSTYRENE FOAMED FIXTURE(L)	
		H10-1866-02	POLYSTYRENE FOAMED FIXTURE(R)	
		H12-0393-02	CARTON BOARD	
		H20-0469-14	PROTECTION COVER	
		H25-0029-04	PROTECTION BAG (60X110)	
		H25-0232-04	PROTECTION BAG (235X350X0.03)	
40	2A	J21-2302-05	HOLDER	
41	1A	J02-0346-13	INSULATOR ASSY	
43	1A	J19-0812-08	HOLDER(REST)	
44	2A	J19-0814-08	HOLDER(WIRE GUIDE)	
		J19-2580-08	WIRE GUIDE	
46	1A	J19-2614-08	WIRE GUIDE	
49	1A	J30-0183-05	SPACER	
50	2B	J31-0263-05	COLLAR	
51	2B	J31-0273-05	COLLAR	
52	2B	J41-0033-05	POWER CORD BUSHING(AUDIO CORD)	

E: Scandinavia & Europe K: USA P: Canada
Y: PX(Far East Hawaii) T: England M: Other Areas
Y: AAFES (Europe) X: Australia

△ indicates safety critical components.

Ref. No.	Address	Parts No.	Description	Destination
53	2B	J42-0078-05	POWER CORD BUSHING(POWER CORD)	P E T
54	1A	J42-0317-08	BUSHING	
55	1A	J50-0314-25	HINGE	
56	1A	J50-0322-04	HINGE PLATE	
58	2A	J69-0035-05	RING	
59	1A	J91-0294-08	WIRE BAND	
61	1A	J92-0053-15	WIRE BAND	
62	1A	J99-0020-08	WIRE BAND	
63	2A	J21-2302-05	WIRE BAND	
64	2A	J19-2656-08	WIRE BAND	
		J61-0054-05	WIRE BAND	
		J61-0307-05	WIRE BAND	
66	2B	L01-7121-05	POWER TRANSFORMER	
66	2B	L01-7122-05	POWER TRANSFORMER	
66	2B	L01-7127-05	POWER TRANSFORMER	
70	3A	N09-0850-04	CARTIDGE MOUNTING SCREW(M2.5X)	
71	3A	N09-0851-04	CARTIDGE MOUNTING SCREW(M2.5X)	
72	3A	N09-0852-04	CARTIDGE MOUNTING SCREW(M2.5X)	
83	3A	N14-0412-04	CIRCULAR NUT	
84	3A	N19-0175-09	FLAT WASHER	
85	2B	N19-0965-05	FLAT WASHER	
87	2A	N19-0985-05	FLAT WASHER	
88	1B	N29-0219-05	M TYPE WASHER	
89	1B	N19-0966-05	M TYPE WASHER	
90	3B	N29-0085-05	RETAINING RING	
		N89-3010-46	BINDING HEAD TAPITITE SCREW	
A	1B	N09-1648-05	MACHINE SCREW (M3X8)	
B	1B	N87-3008-46	BRAZIER HEAD TAPITITE SCREW	
C	1B	N89-3008-46	BINDING HEAD TAPITITE SCREW	
D	1B	N91-4025-46	TP HEAD TAPPING SCREW	
E	1A	N09-1375-08	PAN HEAD MACHINE SCREW	
F	1B	N30-3005-46	PAN HEAD MACHINE SCREW	
G	1A	N09-1374-08	SET SCREW	
H	1A	N09-2802-05	TP HEAD MACHINE SCREW	
I	2B	N09-1565-05	MACHINE SCREW (M6X25)	
J	2B	N24-3050-41	E TYPE RETAINING RING	
K	2A, 2B	N91-4012-46	TP HEAD TAPPING SCREW	
L	2A, 2B	N87-3012-46	BRAZIER HEAD TAPITITE SCREW	
M	2A	N77-4008-45	HEXAGON SOCKET HEAD SET SCREW	
N	1B	N34-4012-46	TRUSS HEAD MACHINE SCREW	
O	2B	N45-3014-47	BRAZIER HEAD TAPPING SCREW	
P	3B	N89-3008-45	BINDING HEAD TAPITITE SCREW	
Q	1A	N09-1376-08	SET SCREW	
R	3B	N87-3010-46	BRAZIER HEAD TAPITITE SCREW	
S	1B	N87-2605-46	BRAZIER HEAD TAPITITE SCREW	
T	1A	N87-2606-05	TAPITITE SCREW (M3X12)	
U	1B	N87-3008-45	TP HEAD MACHINE SCREW	
V	2A	N87-4012-46	BRAZIER HEAD TAPITITE SCREW	
W	1B	N77-3006-45	HEXAGON SOCKET HEAD SET SCREW	
X	1A, 1B	N09-1311-08	STEPPED SCREW	
Y	1A	N73-2603-46	SET SCREW (-, CUP POINT)	
	1A	N77-4005-45	HEXAGON SOCKET HEAD SET SCREW	

E: Scandinavia & Europe K: USA P: Canada
Y: PX(Far East Hawaii) T: England M: Other Areas
Y: AAFES (Europe) X: Australia

△ indicates safety critical components.

Parts with the exploded numbers larger than 700 are not supplied.

12

PARTS LIST

No.4

★ New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Destination 仕向
D6 , 7		RD11ES(B) RD8.2JS(B) RD5.1JS(B) RD6.2ES(B) 1SS178	ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE DIODE	
D12 -15		HSS104 1SS133 MA2T7(A) HSS104 1SS133	DIODE DIODE VARISTOR DIODE DIODE	
D16		LC6528C-4053	IC(MICROPROCESSOR)	
D20 , 21		TC9142P UPD4013BC MS218P MS218P-K	IC(QUARTZ PLL MOTOR CONTROL) IC(D-FLIP FLOP X2) IC(OP AMP X2) IC(OP AMP X2)	
IC1		AN6562	IC(OP AMP X2)	
IC2		LC4066BH	IC(BILATERAL SWITCH X4)	
IC3		UPC78L05J	IC(VOLTAGE REGULATOR / +5V)	
IC4 , 5		W51951ASL	IC(SYSTEM RESET)	
IC6 , 7		NJL5141E-A	PHOTO TRANSISTOR	
IC8		2SC3666	TRANSISTOR	
IC9		2SC1685(R,S)	TRANSISTOR	
IC10		2SC2320(E,F)	TRANSISTOR	
IC11		2SC945(A)(Q,P)	TRANSISTOR	
PH1	1B	DTA124EN	DIGITAL TRANSISTOR	
Q1		2SC1384NC(R,S)	TRANSISTOR	
Q3 , 4		2SA1286	TRANSISTOR	
Q3 , 4		2SK105(F,H)	FET	
Q3 , 4		2SC2320(F,G)	TRANSISTOR	
Q5		2SD1266	TRANSISTOR	
Q6		2SB941	TRANSISTOR	
Q7		2SD882*1(Q,P)	TRANSISTOR	
Q9		2SB772*1(Q,P)	TRANSISTOR	
Q10 , 11		2SD882*1(Q,P)	TRANSISTOR	
Q12				
Q13				
Q14				
Q15 , 16				
Q17				
MOTOR ASSY (X92-1100-00)				
L1 , 2		L39-0127-05	DRIVE COIL	
H1 , 2		T95-0031-15	HALL ELEMENT	

E: Scandinavia & Europe K: USA P: Canada
Y: PX(Far East Hawaii) T: England M: Other Areas
Y: AAFES (Europe) X: Australia
△ indicates safety critical components.

No.3

★ New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Destination 仕向
Z	2A	N09-1597-05	MACHINE SCREW (M6X22.2)	
91	1B	T94-0067-05	SOLENOID	
92	3A	W01-0302-08	HEXAGON WRENCH KEY	
93	3A	W01-0329-04	EP ADAPTER	
DM	3B	X92-1100-00	DIRECT DRIVE MOTOR(T43-0043-13)	
CONTROL UNIT (X25-2580-00)				
D17	2A	B30-1012-05	LED (QUARTZ LOCK)	
D18	2A	B30-1010-05	LED (45)	
D19	2A	B30-1012-05	LED (33)	
C1 , 2		C90-1358-05	ELECTRØ 2200UF 25WV	
C3 , 4		CE04KW1C470M	ELECTRØ 47UF 16WV	
C5		CE04KW1V100M	ELECTRØ 10UF 35WV	
C6 , 6		CE04KW1H2R2M	ELECTRØ 2.2UF 50WV	
C7		CE04KW1H103Z	CERAMIC 0.010UF Z	
C8		CK45FF1H103Z	CERAMIC 0.010UF Z	
C10		CK45FF1H103Z	CERAMIC 0.010UF Z	
C11		CK45FB1H102K	CERAMIC 1000PF K	
C12		CK45FF1H103Z	CERAMIC 0.010UF Z	
C13		CE04KW1VAR7M	ELECTRØ 4.7UF 35WV	
C15		CK45FF1H103Z	CERAMIC 0.010UF Z	
C16 , 17		CC45FSL1H470J	CERAMIC 47PF J	
C18		C90-1351-05	NP-ELEC 0.22UF 50WV	
C19		CE04KW1HR47H	ELECTRØ 0.47UF 50WV	
C20		CK45FF1H103Z	CERAMIC 0.010UF Z	
C21 , 22		CE04KW1V100H	ELECTRØ 10UF 35WV	
C23		CF92FV1H222J	MF 2200PF J	
C24 -27		CF92FV1H332J	MF 3300PF J	
C28 -31		CK45FB1H102K	CERAMIC 1000PF K	
C32 -34		CE04GW1C101M	LL-ELEC 100UF 16WV	
C35		CF92V1H105J	MF 1.0UF J	
C36		C90-1395-05	NP-ELEC 220UF 10WV	
C37		C90-1396-05	NP-ELEC 33UF 10WV	
C38		CK45FF1H103Z	CERAMIC 0.010UF Z	
C39		C90-1285-05	ELECTRØ 3.3UF 25WV	
C40		CK45FF1H103Z	CERAMIC 0.010UF Z	
C41 , 42		CK45FSL1H473Z	CERAMIC 0.047UF Z	
C43		CK45FSL1H331J	CERAMIC 330PF J	
C45		CK45FF1H103Z	CERAMIC 0.010UF Z	
95	1B	C90-1352-05	NP-ELEC 4.7UF 25WV	
X1		E23-0125-05	TERMINAL (GND)	
X2		L77-0580-05	CRYSTAL RESONATOR(4.6MHZ)	
R48 , 49		L78-0202-05	CRYSTAL RESONATOR	
R50 , 51		RN14BK2C8251F	RN 8.25K F 1/6W	
R52 , 53		RN14BK2C1963F	RN 196K F 1/6W	
R54 , 55		RN14BK2C8251F	RN 8.25K F 1/6W	
VR1		RN14BK2C1963F	RN 196K F 1/6W	
VR2		R12-3097-05	TRIMMING PØT.(22K) END DETECT	
S1 -4		R12-1069-05	TRIMMING PØT.(4.7K) THRESHOLD	
D1 -5	2A, 2B	S40-1064-05	PUSH SWITCH	
		SS566B	DIODE	

E: Scandinavia & Europe K: USA P: Canada
Y: PX(Far East Hawaii) T: England M: Other Areas
Y: AAFES (Europe) X: Australia
△ indicates safety critical components.

KD-8030

SPECIFICATIONS

Motor and turntable

Drive System	Direct-drive system
Motor	Quartz PLL coreless & slotless DC servo motor
Turntable Platter	33 cm (13") diameter Aluminum alloy, Die-cast
Speeds	2 speeds, 33-1/3 and 45 rpm
Wow & Flutter	Less than 0.02% (WRMS) Less than 0.03% (DIN)
Rumble	DIN weighted better than -80 dB DIN unweighted better than -55 dB

Tonearm

Type	Static-balance type, J-shape tonearm
Effective Tonearm Length	245 mm (9-5/8")
Overhang	15 mm (9/16")
Tracking Error	+1.8° to -1.0°
Tracking Force Range	0 to 3 grams (0.1 g Step)
Usable Cartridge Weight	2.0 to 12 grams (with supplied head-shell)

Miscellaneous

Power Consumption	25 watts
Dimensions	W: 490 mm (19-5/16") H: 182 mm (7-3/16") D: 410 mm (16-5/32")
Weight (Net)	13.7 kg (30.14 lb)

Note:

We follow a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Note

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the CANADA (P) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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